

Claims

I claim:

1. An ejection device for use in a disc drive, said disc drive comprising a tray and a housing, said ejection device comprising:

a first bar having a first end, a second end and a first supporting point, said first bar being rotatably connected with said tray via said supporting point;

a second bar having a third end and a first latch, said third end being opposite to said second end, and said second bar being movably connected to said tray; and

a first protrusion formed corresponding to said first latch and connected with said housing;

wherein said first latch is engaged with said first protrusion to prevent said tray from moving relative to said housing when said first bar is placed at a first position, and after said first bar rotates to a second position, said second end of said first bar contacts said third end to push said second bar so as to separate said first latch from said first protrusion for releasing said tray.
2. The ejection device as claimed in Claim 1, wherein said disc drive further comprises a panel connected with a front edge of said tray, and said first end of said first bar is extended out of said panel.
3. The ejection device as claimed in Claim 2, wherein said ejection device further comprises a sliding element movably connected with said tray, said first bar is rotatably connected with said sliding element via said supporting point, and selectively moving said first end of said first bar back inside said panel.

4. The ejection device as claimed in Claim 3, wherein said ejection device further comprises a motor pivotally connected with a gear, said sliding element has a rack engaged with said gear, wherein said motor drives said sliding element to move said first end of said first bar back inside said panel.
5. The ejection device as claimed in Claim 3, wherein said sliding element further comprises a second latch, said tray has a second protrusion, and after said first end of said first bar moves back into said panel, said second latch engages with said second protrusion to prevent said sliding from moving related to said tray.
6. The ejection device as claimed in Claim 1, wherein said first bar is connected with said tray via a first spring, and after the first bar rotates to said second position, said spring provides an elastic force to move said first bar back to said first position.
7. The ejection device as claimed in Claim 1, wherein said second bar is connected with said tray via a second spring, and when said second bar is pushed away from an original position to separate said first latch and said first protrusion, said second spring provides an elastic force to move said second bar back to said original position.
8. The ejection device as claimed in Claim 1, wherein said disc drive has a disc-ejection mechanism, said disc-ejection mechanism has a third spring, one end of said disc-ejection mechanism is connected to said housing and the other end of said disc-ejection mechanism is connected to said tray, and said third spring provides an elastic

force to eject a part of said tray out of said housing when said second bar is moved and said first latch is separated from said first protrusion.

9. The ejection device as claimed in Claim 1, wherein said second bar has a second supporting point, and said second bar is movably connected with said tray via said second supporting point.
10. The ejection device as claimed in Claim 1, wherein said first protrusion is a cylindrical protrusion.